

SECTION 31 61 00  
SPREAD AND CONTINUOUS FOOTINGS

PART 1- GENERAL

1.1 SCOPE

A. Work Included:

1. Furnish all labor, materials, services and equipment as required in conjunction with or properly incidental to excavation and installation of spread and continuous footings as described herein and/or as shown on the Drawings.
2. Drawings and general provisions of Contract, including General Supplementary Conditions and Division-1 specification sections, apply to Work of this Section.
3. Refer to other sections for concrete associated with sitework.

1.2 CODES AND STANDARDS

A. The Work described in this Section, unless otherwise noted on the Drawings, or herein specified, shall be governed by the latest editions of the Following codes or specifications.

1. ACI 301, "Specifications for Structural Concrete for Buildings".
2. ACI 304, "Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete".
3. ACI 305, "Hot Weather Concreting".
4. ACI 306, "Cold Weather Concreting".
5. ACI 309, "Standard Practice for Consolidation of Concrete".
6. ACI 311, "ACI Manual of Concrete Inspection".
7. ACI 318, "Building Code Requirements for Reinforced Concrete".

1.3 QUALITY ASSURANCE

A. Installation Tolerances:

1. Maximum lateral variation off of centerlines: 2".

2. Plan Dimensions: Plus 3", minus ½".
3. Thickness: Not smaller than scheduled sizes.
4. Top of Footing Elevation: Plus 0", minus 1".

#### 1.4 SCHEDULING/SEQUENCING

- A. Coordinate Work of this Section with work of other Sections as required to properly execute the Work and as necessary to maintain satisfactory progress of the work of other Sections.
- B. Schedule footing excavations such that reinforcing and concrete can be placed immediately after excavations are completed and inspected.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Reinforcement: Refer to Section 03 20 00.
- B. Cast In Place Concrete: Refer to Section 03 30 00.

### PART 3 - EXECUTION

#### 3.1 EXCAVATION

- A. Spread and continuous footings shall extend to and penetrate bearing materials shown on the Drawings.
- B. The exposed subgrade soils shall be examined in the field by a geotechnical engineer of the testing laboratory to verify the strength and bearing capacity of the soils.
- C. Excavations and footings shall be the size and shape as shown on the Drawings. The bottom of each excavation shall be level, undisturbed, free of water, caving material or any other foreign substance.

#### 3.2 FABRICATION AND PLACING OF REINFORCING

- A. All steel reinforcing mats shall be completely fabricated in a rigid fashion in order to permit expeditious placement into the excavation with a minimum time delay.
- B. Accurately place reinforcement in excavations, maintaining specified coverage.

Secure to prevent displacement during concreting.

### 3.3 FIELD QUALITY CONTROL

- A. Testing Laboratory services shall be in accordance with Section 01 43 26. Provide all inspections and testing as required by the 2006 International Building Code.
- B. Soils Testing Laboratory shall inspect each concrete wall and column footing excavation to determine that proper bearing stratum is obtained and utilized for bearing and that excavations are properly clean and dry before placing concrete.
- C. Furnish complete footing log showing location, elevation of top of bearing stratum, footing size and depth, condition of the material, excavation properly clean and dry before placing concrete, reinforcement in compliance with the Contract Documents and any and all observed irregularities, deficiencies or deviations from the Contract Documents.

### 3.4 INSPECTION

- A. Footing excavation shall be scheduled such that the concrete can be placed immediately after inspection.

### 3.5 PLACING OF CONCRETE

- A. All concrete shall be placed so as to prevent segregation. Do not allow concrete to free fall over 5'-0"; provide tremie, chutes or other means of conveyance when drop exceeds this amount.
- B. Concrete shall be placed as soon as practical after the excavation has been completed. If concrete is not to be placed within twenty-four (24) hours, a 3 inch thick lean concrete "working mat" shall be placed over the bearing surface of the exposed subgrade soils within twenty-four (24) hours after the excavation has been completed. The "working mat" shall not extend above the bottom elevation of the spread or continuous footing.
- C. All backfilling shall proceed as soon as possible.

END OF SECTION

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